# UNITED STATES PATENT AND TRADEMARK OFFICE

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| 09/662,366 | 09/13/2000 | Barry L. Chapman | 064731.0135 | 8955 |

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| 7590     12/30/2003 | EXAMINER |
| Baker Botts LLP | THANGAVELU, KANDASAMY |
| 2001 Ross Avenue | |
| Dallas, TX 75201-2980 | |

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DATE MAILED: 12/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/662,366 | CHAPMAN, BARRY L. |
| | Examiner | Art Unit |
| | Kandasamy Thangavelu | 2123 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on _13 September 2000_.

2a)☐ This action is **FINAL**.    2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) _1-13_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-13_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _13 September 2000_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

### *Introduction*

1.      Claims 1-13 of the application have been examined.

### *Drawings*

2.      The drawings submitted on September 13, 2000 are accepted.

### *Specification*

3.      The disclosure is objected to because of the following informalities:

Page 6, Lines 29-31, "the transport ports 12 and 17 could alternatively be use

some existing or future communication protocol" appears to be incorrect and it appears

that it should be "the transport ports 12 and 17 could alternatively use some existing or

future communication protocol".

Page 31, Lines 5-7, "If protected OC-3 line interfaces are required, then two ...

are required" appears to be incorrect and it appears that it should be "If unprotected

OC-3 line interfaces are required, then two ... are required".

Appropriate corrections are required.

## Claim Objections

4.      The following is a quotation of 37 C.F.R § 1.75 (d)(1):

> The claim or claims must conform to the invention as set forth in the remainder of the specification and terms and phrases in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description.

5.      Claims 1 and 4 are objected to because of the following informalities:

Claim 1, Lines 5-6, "a plurality of different component combinations that each serve as a respective said product" appears to be incorrect and it appears that it should be "a plurality of different component combinations that each serves as a respective said product".

Claim 4, Lines 24-25, "components that are separate from but related to at least some of said products, said component;" appears to be incorrect and it appears that it should be "components that are separate from but related to at least some of said products;".

Appropriate corrections are required.

## Claim Rejections - 35 USC § 112

6.      The following is a quotation of the first paragraph of 35 U.S.C. §112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7.      Claims 8 and 9 are rejected under 35 U.S.C. 112, first paragraph, as containing

subject matter which was not described in the specification in such a way as to enable

one skilled in the art to which it pertains, or with which it is most nearly connected, to

make and/or use the invention.

Claim 8 states, in part "in each of said products, the number of said components

therein identified as corresponding to at least one of said first and second component

classes cumulatively represent at least 40% of the total number of said components

therein". The specification does not describe this requirement and how this requirement

is used in

"identifying a criteria set having a plurality of different states which each

correspond to a respective one of said products; and

associating with each said state of said criteria set a definition of a combination

of the components from said component group which is present in the corresponding

product",

as claimed in claim 1. Therefore, it is not clear why this requirement "said first

and second component classes cumulatively represent at least 40% of the total number

of said components" is claimed and how it could be used in the configuration of

products advantageously.

Claim 9 states, in part "determining whether each of said products meets a condition, said condition being that the number of said components therein identified as corresponding to at least one of said first and second component classes cumulatively represent at least 40% of the total number of said components therein". The specification does not describe this requirement and how this requirement is used in

"identifying a criteria set having a plurality of different states which each correspond to a respective one of said products; and

associating with each said state of said criteria set a definition of a combination of the components from said component group which is present in the corresponding product",

as claimed in claim 1. Therefore, it is not clear why this requirement "said first and second component classes cumulatively represent at least 40% of the total number of said components" is claimed and how it could be used in the configuration of products advantageously.

Claim 9 states, in part "responding to a determination that one of said products does not meet said condition by effecting an adjustment which causes one of said components determined to correspond to said third component class to be treated as corresponding to said second component class rather than said third component class". The specification does not describe this requirement and how this requirement is used in

"identifying a criteria set having a plurality of different states which each correspond to a respective one of said products; and

associating with each said state of said criteria set a definition of a combination

of the components from said component group which is present in the corresponding

product",

as claimed in claim 1. Therefore, it is not clear why this requirement "causes one

of said components determined to correspond to said third component class to be

treated as corresponding to said second component class rather than said third

component class" is claimed and how it could be used in the configuration of products

advantageously.


8.      The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and
> distinctly claiming the subject matter which the applicant regards as his invention.


9.      Claims 8 and 9 are rejected under 35 U.S.C. § 112, second paragraph, as being

incomplete for omitting essential steps, such omission amounting to a gap between the

steps. See MPEP § 2172.01. The omitted steps are:

Claim 8 states, in part "said determining steps are carried out in a manner so

that, in each of said products, the number of said components therein identified as

corresponding to at least one of said first and second component classes cumulatively

represent at least 40% of the total number of said components therein". This claim

does not include a step of using this information in

"identifying a criteria set having a plurality of different states which each

correspond to a respective one of said products; and

associating with each said state of said criteria set a definition of a combination

of the components from said component group which is present in the corresponding

product",

as claimed in claim 1. Therefore, it is not clear how this requirement "said first

and second component classes cumulatively represent at least 40% of the total number

of said components" is used in the configuration of products advantageously.


Claim 9 states, in part "determining whether each of said products meets a

condition, said condition being that the number of said components therein identified as

corresponding to at least one of said first and second component classes cumulatively

represent at least 40% of the total number of said components therein". This claim

does not include a step of using this information in

"identifying a criteria set having a plurality of different states which each

correspond to a respective one of said products; and

associating with each said state of said criteria set a definition of a combination

of the components from said component group which is present in the corresponding

product",

as claimed in claim 1. Therefore, it is not clear how this requirement "said first

and second component classes cumulatively represent at least 40% of the total number

of said components" is used in the configuration of products advantageously.

Claim 9 states, in part "responding to a determination that one of said products

does not meet said condition by effecting an adjustment which causes one of said

components determined to correspond to said third component class to be treated as

corresponding to said second component class rather than said third component class".

This claim does not include a step of using this information in

"identifying a criteria set having a plurality of different states which each

correspond to a respective one of said products; and

associating with each said state of said criteria set a definition of a combination

of the components from said component group which is present in the corresponding

product",

as claimed in claim 1. Therefore, it is not clear how this requirement "causes one

of said components determined to correspond to said third component class to be

treated as corresponding to said second component class rather than said third

component class" is used in the configuration of products advantageously.

### Claim Rejections - 35 USC § 103

10.     The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.

11.    The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

   1.    Determining the scope and contents of the prior art.
   2.    Ascertaining the differences between the prior art and the claims at issue.
   3.    Resolving the level of ordinary skill in the pertinent art.
   4.    Considering objective evidence present in the application indicating obviousness
         or nonobviousness.

12.    Claims 1-6 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

**Lynch et al. (LY)** (U.S. Patent application 2002/0035463) in view of **Mori et al. (MO)** (IEEE,

1993), and further in view of **Iizuka et al. (II)** (IEEE, 1988) and **Deang (DE)** (IEEE, 1998).

12.1    **LY** teaches method and apparatus for configuring systems. Specifically, as per Claim 1,

**LY** teaches a method for facilitating configuration of one of a plurality of different products

from a set of components which can be selectively combined in different ways to form a plurality

of different component combinations that each serve as a respective product (Abstract, L1-4;

Page 1, Para 0004; Page 3, Para 0029); comprising the steps of:

      determining whether each component in the set corresponds to a first component class

involving components that are required in each product without variation in quantity and type

(Abstract, L11-17; Page 4, Para 0037 and Para 0038).

      **LY** does not expressly teach determining whether each component in the set corresponds

to a second component class involving components that are required in each product but that

vary among the products with respect to at least one of quantity and type.  **MO** teaches

determining whether each component in the set corresponds to a second component class

involving components that are required in each product but that vary among the products with

respect to at least one of quantity and type (Page 306, CL2, Para 1, L3-5; Page 307, CL1, Para 5,

L5-6), as the system configuration task involves a large number of correlated hardware and

software restrictions to be considered (Page 306, CL2, Para 1, L1 and Para 3, L2-3) and as per

**LY**, the system has to be configured by identifying the component and resource needs,

constraints imposed on or by the resources or components identified and the structural aspects of

the system (Abstract, L16-19).  It would have been obvious to one of ordinary skill in the art at

the time of Applicant's invention to combine the method of **LY** with the method of **MO** that

included determining whether each component in the set corresponded to a second component

class involving components that were required in each product but that varied among the

products with respect to at least one of quantity and type, as the system configuration task would

involve a large number of correlated hardware and software restrictions to be considered and the

system would have to be configured by identifying the component and resource needs,

constraints imposed on or by the resources or components identified and the structural aspects of

the system.

   **LY** does not expressly teach determining whether each component in the set corresponds

to a third component class involving components that are each present in some but not all of the

products, the components corresponding to the second and third component classes collectively

forming a component group.  **II** teaches determining whether each component in the set

corresponds to a third component class involving components that are each present in some but

not all of the products, the components corresponding to the second and third component classes

collectively forming a component group (Page 442, CL1, Para 2), as that provides advice based

on empirical rules developed by experienced engineers to simplify possible system enhancement

in the future (Page 442, CL1, Para 2). It would have been obvious to one of ordinary skill in the

art at the time of Applicant's invention to combine the method of **LY** with the method of **II** that

included determining whether each component in the set corresponds to a third component class

involving components that are each present in some but not all of the products, the components

corresponding to the second and third component classes collectively forming a component

group, as that would provide advice based on empirical rules developed by experienced

engineers to simplify possible system enhancement in the future.

LY does not expressly teach identifying a criteria set having a plurality of different states

which each correspond to a respective one of the products. **DE** teaches identifying a criteria set

having a plurality of different states which each correspond to a respective one of the products

(Page 1, CL1, Para 2, L1-3; Page 2, CL1, Para 3, L1-4; Page 3, CL1, Para 5, L1-3), as that allows

a system synthesis process by creating a system or subsystem from basic components according

to a set of performance, cost and functionality requirements (Page 1, CL1, Para 2, L1-3). It

would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to

combine the method of **LY** with the method of **DE** that included identifying a criteria set having

a plurality of different states which each correspond to a respective one of the products, as that

would allow a system synthesis process by creating a system or subsystem from basic

components according to a set of performance, cost and functionality requirements.

LY does not expressly teach associating with each state of the criteria set a definition of a

combination of the components from the component group which is present in the corresponding

product. **DE** teaches associating with each state of the criteria set a definition of a combination

of the components from the component group which is present in the corresponding product

(Page 1, CL1, Para 3, L3-4; Page 2, CL2, Para 4, L4-7; Page 3, CL1, Para 5, L1-3; Page 3, CL2,

Para 2, L1-7), as that allows a system synthesis process by creating a system or subsystem from

basic components according to a set of performance, cost and functionality requirements (Page 1,

CL1, Para 2, L1-3). It would have been obvious to one of ordinary skill in the art at the time of

Applicant's invention to combine the method of **LY** with the method of **DE** that included

associating with each state of the criteria set a definition of a combination of the components

from the component group which is present in the corresponding product, as that would allow a

system synthesis process by creating a system or subsystem from basic components according to

a set of performance, cost and functionality requirements.


12.2    As per Claim 2, **LY, MO, II** and **DE** teach the method of Claim 1. **LY** does not

expressly teach that the products each have therein one of a plurality of different combinations of

the components corresponding to the second component class. **MO** teaches that the products

each have therein one of a plurality of different combinations of the components corresponding

to the second component class (Page 306, CL2, Para 1, L3-5; Page 307, CL1, Para 5, L5-6), as

the system configuration task involves a large number of correlated hardware and software

restrictions to be considered (Page 306, CL2, Para 1, L1 and Para 3, L2-3) and as per **LY**, the

system has to be configured by identifying the component and resource needs, constraints

imposed on or by the resources or components identified and the structural aspects of the system

(Abstract, L16-19). It would have been obvious to one of ordinary skill in the art at the time of

Applicant's invention to combine the method of **LY** with the method of **MO** that included the

products each having therein one of a plurality of different combinations of the components

corresponding to the second component class, as the system configuration task would involves a

large number of correlated hardware and software restrictions to be considered and the system

would have to be configured by identifying the component and resource needs, constraints

imposed on or by the resources or components identified and the structural aspects of the system.

  **LY** does not expressly teach that the identifying step includes the step of identifying a

criteria subset which is a subset of the criteria set and which has a plurality of different states,

each of the products being associated with one of the states of the criteria subset. **DE** teaches

that the identifying step includes the step of identifying a criteria subset which is a subset of the

criteria set and which has a plurality of different states, each of the products being associated

with one of the states of the criteria subset (Page 1, CL1, Para 2, L1-3; Page 2, CL1, Para 3, L1-

4; Page 3, CL1, Para 5, L1-3), as that allows a system synthesis process by creating a system or

subsystem from basic components according to a set of performance, cost and functionality

requirements (Page 1, CL1, Para 2, L1-3). It would have been obvious to one of ordinary skill in

the art at the time of Applicant's invention to combine the method of **LY** with the method of **DE**

that included the identifying step including the step of identifying a criteria subset which was a

subset of the criteria set and which had a plurality of different states, each of the products being

associated with one of the states of the criteria subset, as that would allow a system synthesis

process by creating a system or subsystem from basic components according to a set of

performance, cost and functionality requirements.

LY does not expressly teach that the identifying step includes the step of associating with each of the states of the initial criteria set a definition of a respective one of the different combinations of components corresponding to the second component class. **DE** teaches that the identifying step includes the step of associating with each of the states of the initial criteria set a definition of a respective one of the different combinations of components corresponding to the second component class (Page 1, CL1, Para 3, L3-4; Page 2, CL2, Para 4, L4-7; Page 3, CL1, Para 5, L1-3; Page 3, CL2, Para 2, L1-7), as that allows a system synthesis process by creating a system or subsystem from basic components according to a set of performance, cost and functionality requirements (Page 1, CL1, Para 2, L1-3). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the method of **LY** with the method of **DE** that included the identifying step including the step of associating with each of the states of the initial criteria set a definition of a respective one of the different combinations of components corresponding to the second component class, as that would allow a system synthesis process by creating a system or subsystem from basic components according to a set of performance, cost and functionality requirements.

12.3     As per Claim 3, **LY, MO, II** and **DE** teach the method of Claim 1. **LY** does not expressly teach the step of configuring the components so that at least one of the components in the component group is available in a plurality of types. **DE** teaches the step of configuring the components so that at least one of the components in the component group is available in a plurality of types (Page 3, CL1, Para 3, L4-7; Page 3, CL1, Para 5, L1-4), as that allows a system synthesis process by creating a system or subsystem from basic components according to a set of

performance, cost and functionality requirements (Page 1, CL1, Para 2, L1-3). It would have

been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine

the method of **LY** with the method of **DE** that included the step of configuring the components

so that at least one of the components in the component group was available in a plurality of

types, as that would allow a system synthesis process by creating a system or subsystem from

basic components according to a set of performance, cost and functionality requirements.

12.4    As per Claim 4, **LY, MO, II** and **DE** teach the method of Claim 1. **LY** does not

expressly teach determining whether each component in the set corresponds to an ancillary

component class involving components that are separate from but related to at least some of the

products, the component; and including in the component group the components corresponding

to the ancillary class. **MO** teaches determining whether each component in the set corresponds

to an ancillary component class involving components that are separate from but related to at

least some of the products, the component; and including in the component group the

components corresponding to the ancillary class (Page 307, CL2, Para 2), as in addition to

components specified explicitly, it is necessary to add components necessary to meet the user

input requirements (Page 306, CL2, Para 2). It would have been obvious to one of ordinary skill

in the art at the time of Applicant's invention to combine the method of **LY** with the method of

**MO** that included determining whether each component in the set corresponds to an ancillary

component class involving components that are separate from but related to at least some of the

products, the component; and including in the component group the components corresponding

to the ancillary class, as in addition to components specified explicitly, it would be necessary to add components necessary to meet the user input requirements.

12.5    As per Claim 5, **LY, MO, II** and **DE** teach the method of Claim 1. **LY** does not expressly teach that the identifying step includes the step of identifying a set of questions which correspond to the criteria in the criteria set and which have different combinations of possible answers, each state of the criteria set corresponding to a respective combination of answers to the questions. **DE** teaches that the identifying step includes the step of identifying a set of questions which correspond to the criteria in the criteria set and which have different combinations of possible answers, each state of the criteria set corresponding to a respective combination of answers to the questions (Page 1, CL2, Para 2, L6-9; Page 1, CL1, Para 3, L3-4; Page 1, CL2, Para 2, L9-11; Page 3, CL1, Para 4, L1-3), as that allows an automated design and synthesis process which maps a set of input specifications to a hardware and software implementation (Page 1, CL1, Para 3) and shortens the design cycle, reduces the complexity of the design task and eases the creation of cost-effective system (Page 1, CL2, Para 2). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the method of **LY** with the method of **DE** that included the identifying step including the step of identifying a set of questions which corresponded to the criteria in the criteria set and which had different combinations of possible answers, each state of the criteria set corresponding to a respective combination of answers to the questions, as that would allow an automated design and synthesis process which mapped a set of input specifications to a hardware and software

implementation and shortened the design cycle, reduced the complexity of the design task and

eased the creation of cost-effective system.

12.6    As per Claim 6, **LY, MO, II** and **DE** teach the method of Claim 1.  **LY** does not

expressly teach the step of presenting questions from the set of questions to a person, accepting

from the person an answer to each question, and configuring a product based on the answers

accepted from the person.  **DE** teaches the step of presenting questions from the set of questions

to a person, accepting from the person an answer to each question, and configuring a product

based on the answers accepted from the person (Page 1, CL2, Para 2, L6-9; Page 1, CL1, Para 3,

L3-4; Page 1, CL2, Para 2, L9-11; Page 3, CL1, Para 4, L1-3), as that allows an automated

design and synthesis process which maps a set of input specifications to a hardware and software

implementation (Page 1, CL1, Para 3) and shortens the design cycle, reduces the complexity of

the design task and eases the creation of cost-effective system (Page 1, CL2, Para 2).  It would

have been obvious to one of ordinary skill in the art at the time of Applicant's invention to

combine the method of **LY** with the method of **DE** that included the step of presenting questions

from the set of questions to a person, accepting from the person an answer to each question, and

configuring a product based on the answers accepted from the person, as that would allow an

automated design and synthesis process which mapped a set of input specifications to a hardware

and software implementation and shortened the design cycle, reduced the complexity of the

design task and eased the creation of cost-effective system.

12.7    As per Claim 10, **LY, MO, II** and **DE** teach the method of Claim 1.  **LY** does not

expressly teach including prior to the determining steps, the step of generating for each

component respective component information which includes an identification of all types of

component and includes configuration information defining the conditions under which a

particular type and quantity of that component are used in each of the products.  **DE** teaches

including prior to the determining steps, the step of generating for each component respective

component information which includes an identification of all types of component and includes

configuration information defining the conditions under which a particular type and quantity of

that component are used in each of the products (Page 3, CL2, Para 2, L4-7; Page 3, CL2, Para

3), as that allows a system synthesis process by creating a system or subsystem from basic

components according to a set of performance, cost and functionality requirements (Page 1, CL1,

Para 2, L1-3).  It would have been obvious to one of ordinary skill in the art at the time of

Applicant's invention to combine the method of **LY** with the method of **DE** that included

including prior to the determining steps, the step of generating for each component respective

component information which includes an identification of all types of component and includes

configuration information defining the conditions under which a particular type and quantity of

that component are used in each of the products, as that would allow a system synthesis process

by creating a system or subsystem from basic components according to a set of performance,

cost and functionality requirements.


12.8    As per Claim 11, **LY, MO, II** and **DE** teach the method of Claim 10.  **LY** does not

expressly teach that the step of generating the component information includes the step of taking

engineering limitations into account in preparing the configuration information. **MO** teaches

that the step of generating the component information includes the step of taking engineering

limitations into account in preparing the configuration information (Page 306, CL2, Para 3),

because as per **DE**, that allows a system synthesis process by creating a system or subsystem

from basic components according to a set of performance, cost and functionality requirements

(Page 1, CL1, Para 2, L1-3).   It would have been obvious to one of ordinary skill in the art at

the time of Applicant's invention to combine the method of **LY** with the method of **MO** that

included the step of generating the component information including the step of taking

engineering limitations into account in preparing the configuration information, as that would

allow a system synthesis process by creating a system or subsystem from basic components

according to a set of performance, cost and functionality requirements.


12.9    As per Claim 12, **LY, MO, II** and **DE** teach the method of Claim 1.  **LY** also teaches

after the determining, identifying and associating step, the step of preparing a flowchart which

graphically represents a mapping between the different states of the criteria set and the

definitions of combinations of the components from the component group (Figs. 6-10).


12.10   As per Claim 13, **LY, MO, II** and **DE** teach the method of Claim 1.  **LY** also teaches the

step of configuring one of the components which corresponds to the first component class so that

it can removably receive therein a plurality of other the components (Abstract, L1-3; Page 4,

CL1, Para 0035-0038).

13.    Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Lynch et al. (LY)**

(U.S. Patent application 2002/0035463) in view of **Mori et al. (MO)** (IEEE, 1993), **Iizuka et al.**

**(II)** (IEEE, 1988) and **Deang (DE)** (IEEE, 1998), and further in view of **Bannai et al. (BA)**

(U.S. Patent 6,647,428).


13.1    As per Claim 7, **LY, MO, II** and **DE** teach the method of Claim 1.  **LY** does not

expressly teach that each of the products is a telecommunications product having transport

interfaces and tributary interfaces.  **BA** teaches that each of the products is a telecommunications

product having transport interfaces and tributary interfaces (Fig. 4; CL1, L10-13 and L20-25), as

that facilitates end-to-end transport of multiple services originating at a variety different types of

tributary interfaces located at low speed ingress ports at customer premises (CL1, L10-13 and

L20-25).   It would have been obvious to one of ordinary skill in the art at the time of

Applicant's invention to combine the method of **LY** with the method of **BA** that included each of

the products being a telecommunications product having transport interfaces and tributary

interfaces, as that would facilitate end-to-end transport of multiple services originating at a

variety different types of tributary interfaces located at low speed ingress ports at customer

premises.

LY does not expressly teach that the identifying step includes the step of including within

the criteria set at least one of a network element type, a speed for the transport interfaces,

whether the transport interfaces are to be protected, a reach of the transport interfaces, whether

ATM interface capability is to be present, a speed for the tributary interfaces, a quantity of the

tributary interfaces, whether the tributary interfaces are to be protected, and a reach of the

tributary interfaces. **BA** teaches that the identifying step includes the step of including within the

criteria set at least one of a network element type, a speed for the transport interfaces, whether

the transport interfaces are to be protected, a reach of the transport interfaces, whether ATM

interface capability is to be present, a speed for the tributary interfaces, a quantity of the tributary

interfaces, whether the tributary interfaces are to be protected, and a reach of the tributary

interfaces (Fig. 2; CL3, L43-67; CL1, L26-28), as that facilitates delivering data from a variety

of different kinds of external interfaces to corresponding compatible external interfaces

elsewhere in the network  (CL3, L43-46), and enable data to be rerouted in the event of failure

(CL1, L27).   It would have been obvious to one of ordinary skill in the art at the time of

Applicant's invention to combine the method of **LY** with the method of **BA** that included the

identifying step including within the criteria set at least one of a network element type, a speed

for the transport interfaces, whether the transport interfaces are to be protected, a reach of the

transport interfaces, whether ATM interface capability is to be present, a speed for the tributary

interfaces, a quantity of the tributary interfaces, whether the tributary interfaces are to be

protected, and a reach of the tributary interfaces, as that would facilitate delivering data from a

variety of different kinds of external interfaces to corresponding compatible external interfaces

elsewhere in the network, and enable data to be rerouted in the event of failure.


### Conclusion


14.     The prior art made of record and not relied upon is considered pertinent to the

Applicants' disclosure.

The following patents and papers are cited to further show the state of the art at the time of Applicant's invention with respect to automated product and system configuration using interactive methods for computer and communication systems:

1. Cook et al., "Automated system for facilitating creation of a rack-mountable component personnel computer", U.S. patent 5,850,539, December 1998.

2. Fisher et al., "Computer manufacturing with smart configuration methods", U.S. Patent 6,247,128, June 2001.

3. Maritzen et al., "Platform-independent, usage-independent, and access-independent distributed quote configuration system", U.S. patent 5,870,719, February 1999.

15.    Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone number is 703-305-0043. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska, can be reached on (703) 305-9704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-305-

9600.


K. Thangavelu
Art Unit 2123
December 24, 2003
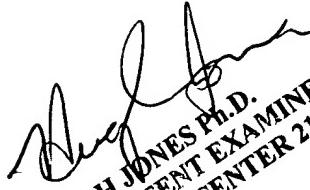
HUGH JONES Ph.D.
PRIMARY PATENT EXAMINER
TECHNOLOGY CENTER 2100